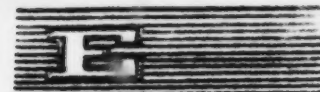




UNITED NATIONS
ECONOMIC AND SOCIAL COUNCIL



Distr.
LIMITED

E/ECA/AAU/ED/86/2
21 November 1986

Original: ENGLISH

ECONOMIC COMMISSION FOR AFRICA

Third ECA/AAU Conference of Vice-Chancellors,
Presidents and Rectors of Institutions of
Higher Learning in Africa

Harare, Zimbabwe, 19-20 January 1987

LE/NAIROBI

POLICIES AND STRATEGIES FOR INSTITUTIONS OF HIGHER LEARNING IN
AFRICA IN VIEW OF AFRICA'S LONG-TERM DEVELOPMENT CHALLENGES
AND STRATEGIES

POLICIES AND STRATEGIES FOR INSTITUTIONS OF HIGHER LEARNING IN
AFRICA IN VIEW OF AFRICA'S LONG-TERM DEVELOPMENT CHALLENGES
AND STRATEGIES

I. Introduction

1. By the first half of the 1980's the major development challenges to Africa was to stay alive. The agriculture sector was severely hit by drought, desertification and low productivity leading to a major food shortfall and a great dependence on food aid. The industrial sector reached an undesirable state of decay due primarily to the slow pace of investment flow; a rapid depreciation on existing capital goods and infrastructure; and the lack of adequate indigenous entrepreneurs and skilled and managerial manpower. The social sector reached its own crisis point. Imbalances had developed between the number and types of available jobs and job seekers; between population growth and resource accumulation and distribution, and between social norms, political desires and production patterns. In totality, Africa's development was at a stalemate by mid 1980 despite the tremendous efforts made by the Governments and peoples of Africa in the fields of education, health, agriculture and industry.

2. For the second half of the 1980's, the Governments of Africa have formulated detailed priority measures and solicited world assistance in lending support to their commitment to lay a sound foundation for African development up to 1990 as contained in APPER, Africa's submission to the Special Session of the United Nations General Assembly on Africa's Economic and Social Crisis, and the United Nations Programme of Action for African Economic Recovery and Development 1986-1990. The basic challenges posed by this desire for recovery and a sound foundation are embeded in the need for achieving a self-reliant and self-sustained development beyond the year 1990.

3. Structural imbalances; wide-spread low level productivity of the African economies; heavy dependence of domestic production on imports; failure to diversify into new types of exports; and the absence of domestic linkages have all been identified as existing development problems of Africa -. Consequently, if Africa is to begin the path of development beyond 1990, these structural problems will have to be resolved. The challenge is therefore clear: pursuing

1/ "Africa's Submission to the Special Session of the United Nations General Assembly on Africa's Economic and Social Crisis"; ONU/ECH/2XV/Rev.2, E/ECA/ECA.1/1/Rev.2; 1986.

policies and institutional reforms that would bring about major structural changes and establish more dynamic, self-reliant and self-sustaining economies in Africa. The implication of the challenge, as summarized by ECA, is Africa's ability at that time to (i) use Africa's vast resources to meet the needs and aspirations of the people; (ii) change from total reliance on export of a few raw material to a growth path based on a combination of natural resources, enterprenurial, managerial and technical resources, the restructuration and expansion of the domestic market; (iii) mobilize all of Africa's human and material resources for industrial development...^{1/}; and (iv) promote African economic integration and co-operation⁻.

4. The above challenges must be taken up jointly by all facets of the African society including all institutions operating within the Continent so as to optimize, sustain and enhance the desired development goal. An essential part of such participation involves sectoral policies formulation and the development and pursuit of strategies to implement the policies! As we all know, African institutions of higher learning are of no exception to this general rule of thumb. If anything, they are among the few most crucial type of institutions required to provide the necessary backbone to the process. In other words their direct and active involvement is inevitable to the achievement of a self-reliant and self-sustained development. Therefore what they have done in the past, what they do now and what they would do in the future do have direct bearing on the viability and nature of socio-economic conditions in Africa.

5. Consequently, African universities and other institutions of higher learning will have to examine the effectiveness of past and present policies and strategies with the view of formulating future options that will make their role in African future development more effective. Evidence from the various meetings of the AAU, African Ministers of Education, University Vice-Chancellors and Rectors etc. show that much of this examination has taken place over the years though with little follow-up action which could have determined the benefits of the exercise. To continue the effort, this paper focuses attention on some fundamental elements which should be taken into account in any discussion during such an examination making particular reference to the formulation of higher education policies and strategies in the light of Africa's development challenges and strategies between the years 1990 and 2008.

6. The paper takes a quick glance at prevailing socio-economic conditions in Africa as a basis for appreciating the "willed" future, followed by a review of

^{1/} "ECA and Africa's Development 1983-2008: A Preliminary Perspective Study"; UNECA, Addis; April 1983; p.55.

the Continent's long-term development challenges and needs drawing their respective implications for sharper higher education policies and strategies. It concludes with a few policy and strategy suggestions and a plan of action with the aim to stimulate discussion and generate various options so as to ensure that African institutions of higher learning play their dutiful role in the development process at that time. The message through the paper together with the required action is clear: Africa would be faced with a number of challenges in the years ahead derived from the decisions and actions taken during the next five years. These challenges must be met and African institutions of higher learning could play a catalyst role. Consequently there is the need to revisit present policies and strategies for higher education and the decision ought to be taken now.

7. The basic assumption which underlies the issues and suggestions raised in this paper is that the necessary foundation for durable structural changes and economic take-off would have been laid by 1990 following a successful performance of programmes such as APPER, UN-PAAERD, the United Nations Transport and Communication Decade in Africa; and the United Nations Industrial Development Decade for Africa. Needless to say that the validity of this assumption rests with what each and every concerned institution government and would do between now and 1990 in relation to resource mobilization, resource development and resource utilization, and the type and scope of development policies formulated to guide future events.

II. The Point of Departure and Cause for Reform

8. The African population nearly doubled between 1960 and 1980 from an estimated 257 million people to about 440 million. High and fairly constant fertility levels coupled with a declining infant mortality rate have been cited as major contributing factors. The rural areas, where virtually social and economic activities are in their rudimentary stages, provide living space for more than 70 per cent of the African population despite the fact that the region's rural-to-urban migration rate is among the world's highest. Associated problems which are of daily concerns to African Governments include closing the imbalances between population growth and resource distribution, and removing resulting socio-infrastructure bottlenecks such as inadequate housing, education and employment opportunities. Within the core of these two problem areas are a few sad realities of development in Africa. Not only is there a low per capita income index for most of the countries, but whatever little income there is, it is not distributed fairly among people and geographic regions. Another disturbing yet growing reality is the incidence of urban unemployment rural underemployment and the spread of mass poverty. Additionally, despite substantial investment outlays and enthusiasm in the development of education in Africa, the orientation of education at all levels have yet to be responsive to Africa's needs and aspirations.

9. The discrepancies between the growth trends of the African population and the production of food is yet another and of those sad realities. What is even more frightening is that while Africa's overall food production trend stagnated around 1.5 per cent over a decade, growth in food demand kept pace with, and in some cases, overshot population expansion. This undesirable performance is attributed not only to the exogenous problems of drought and desertification but also to what ECA calls "internal factors" such as "low productivity rates especially per unit of land, inadequate investment outlays in agriculture, poor incentives to farmers, fragmentation and subdivision of holdings, inadequate land tenure systems, limited agricultural research, rural-urban migration and institutional constraints". The overall result is a growing food deficit in a Continent which has a comparative advantage in agriculture relative to most parts of the world. To stay afloat, the region resorted to increasing food imports and reliance on food aid. A strategy which does not only threaten to negate the goal of food self-sufficiency, but one which gives rise to a high opportunity cost to society for the use of scarce foreign exchange earnings away from development projects so as to support the imported food basket.

10. As is, there is nothing much one can tell home in regards to the industrial sector and its process in Africa. First African industrial planning and industrial development have been piecemeal, immature and theoretical. Secondly, the sector continues to remain an enclave dominated mostly by trans-nationals and hence an insignificant contributor to the region's productive income. Furthermore, apart from the production of a narrow range of intermediate goods, the industrial sector is characterized by eight industries producing consumer goods, mainly beverages and tobacco; and by a crude and relatively weak degree of processing and semi-processing of mineral and agricultural raw materials for export. On the other hand, the production of capital and other essential consumer goods is only marginal given the inflexible structure of production which is based on small-size and under-utilized plants. The problem is not only limited to the production of capital and consumer goods. Industrialization in Africa is also biased against the production of intermediate goods such as fertilizers, cement, iron and steel, aluminium, chemicals, etc.

11. In the face of a growing demand for consumer intermediate and capital goods, these weaknesses in the industrial sector have led to increase import bills which do not only affect the foreign exchange reserve position, but also Africa's production and marketing cost structures, and Africa's ability to exploit its natural resources, develop domestic technology and take due advantage of its surplus labour. A major constraining factor is that the production process is characterized by weak forward and backward linkages within and between the industrial structure and the natural resource base.

1/ Ibid.; p.9.

Besides, for those production which are foreign market-oriented, the process suffered from the recent world economic recession and is likely to be subjected to stronger competition from outside in terms of quality and prices and from the high cost of imported inputs for producing manufactured goods.

12. What has emerged from various analysis of this sluggish performance of African economies over the last ten years is that the following are among the major contributing factors: (i) the inadequacy and poor condition of Africa's transport and communication infrastructure; (ii) Africa's incapability to exploit, process and utilize in an integrated manner her vast reserves of natural resources; and (iii) a diminishing trend in capital growth and a growing financial leakage given rise to huge payment deficits and the accumulation of non-productive and self-inflicting debt. In our view these factors can be summed up in one sentence: the inappropriateness of Africa's policies, strategies, programmes and attitude toward the development and utilization of its human resources particularly those needed for high and middle-level jobs. The implication of this observation raises a number of questions pertaining to the relevancy, structure, policies, strategies and programmes of higher education in Africa:

- (i) Are the African institutions of higher learning aware of this problem and, if so, what steps were taken or are now being taken to assist in finding a solution;
- (ii) Are there internal or external factors which have constrained the institutions in their desire to play a more positive role in resolving the high and middle-level manpower bottleneck, and how best could such constraints be removed;
- (iii) Are present linkages which exist between various institutions of higher learning within a particular country, or between those within the continent, or between national institutions and governments, of the kind that would foster co-operation in the undertaken of action-oriented research, the exchange of knowledge and innovative ideas, and the development of higher education in Africa.

13. Answers to these and other resulting questions need not be sought only at this Conference. If African Institutions of higher learning are to be responsibly involved in the challenges of Africa's development beyond 1990, then answers should be sought at various formal and informal meetings and activities with the view to building the necessary foundation during the next ten years to meet the challenge. Consequently, as a point of departure, a blue print for the development of higher education in Africa will have to be drawn up within a framework of clearly established long-term policies and strategies for making higher education development-oriented.

III. Africa's Development Challenge Beyond the year 1990: The Point of Reference

14. Given that the assumption stated above holds a set of measures to provide new impetus to agricultural development in Africa, and measures to combat potential food shortages and to create food security, food protection and food distribution arrangements would have been instituted in the region by 1990. Additionally, agro-related industry would have been rehabilitated, upgraded and expanded with the necessary transportation, communication and marketing arrangements made for improving access to production areas, and distribution channels for domestic trade and intra-African trade. Radical policies for human resources planning, development and utilization would have evolved and integrated within the framework of national development policies and plans along side with major policy reforms with respect to managing the economy, structural adjustment, population dynamics and the participation of men and women in development. In short, by the end of 1990, a foundation for durable structural changes would have been laid and a set of policies to improve productivity levels and enhance long-term development prospects established.

15. All things being equal Africa's development challenges beyond 1990 would therefore be those transcending beyond recovery and foundation building into transforming and sustaining the African economic and social structures. Accordingly, all actions taken must be taken in the cause of creating the types of economies in which economic growth and development would be more dependent on domestic resource use and internal demand stimuli. As put by African Governments themselves, this would only be achieved "by adopting an integrated approach to development, increasing the substitution of factor inputs from within the system for those derived from outside, altering the nature and types of goods and services needed to meet the basic needs of the majority of the population, and by strengthening subregional and regional co-operation and encouraging the co-ordinated exploitation and utilization of Africa's vast resources for the benefit of the African people".^{1/}

16. A deeper analysis of the above requirements suggests that the major challenges by the year 1990 and beyond would be broadly centred around the issues of effective organization and development management with the role of African institutions of higher learning becoming more and more demanding. The nature of and elements contained in each of these two broad areas and their corresponding implications for high-level manpower development and diversification need to be understood when setting higher education policies

^{1/} "Africa's Submission to the Special Session of the United Nations General Assembly on Africa Economic and Social Crisis"; OAU/EC1/2XV/Rev.2, E/ECA/EC1.1/1/Rev.2; Addis Ababa, 1986; p.9.

and strategies as well as during the preparation of a blue print for higher education development as suggested in the last section. Attempt is therefore made in this section to highlight some of those elements together with their implications for higher education in Africa.^{1/}

(i) Effective Organization

17. It has often been said that the lack of "effective organization" could lead to inefficient utilization of resources and the dissipation of efforts with the aggregate impact causing failure and frustration. To avoid this dispair, the challenge to ensure a viable, functional and interwoven organization will have to be met. Essential components of such an organization, which need to be properly designed and administered, include important areas like social institutions and integration; political infrastructure and participation; administrative rules and procedures; and judicious legislations and practices. Existing framework of these key development variables will have to take on forms that would stimulate the creativity and the initiatives that make man a development-oriented resource.

18. Elements of this challenge would give rise to three development needs during the 1990's. First, the need to evolve development-oriented leadership and development-oriented administration process and consequently a development conscious society would be ever pressing. This means that all aspects of policy measures and institutional activities will have to be development-centred so that every activity, every thought, every step of the people and institutions contributes to the consolidation of Africa's development. Secondly, there would be the need for new development concepts, approaches and organizational behaviour that would effect this new development re-orientation. Finally, the challenge would stem from the relationship between politicians, public servants, rural dwellers, administrators and academicians. This relationship should take on greater co-operation and mutual concern with each other in their joint responsibilities in the development task.

19. African institutions of higher learning have a vital role to play in this regard. The weight of the challenge would rest with those institutional machineries developed to support agriculture, industry, natural resources, transport; communication, trade, finance, law and order and social activities. For such machineries to be effective, they must be staffed with men and women

^{1/} Detailed treatment of the issues raised and statistics quoted can be found in "ECA and Africa's Development 1983-2008: A Preliminary Perspective Study; UNECA, April 1983. The implications are inferences from the "willed" future of Africa by 2008 under a normative development scenario in the same document.

having the necessary "know-how" and "know-why" that would ensure the appropriate relationship between development objectives and development activities.

The type of capabilities required would include those to prepare and design projects, to map out efficient use of investment funds, to appraise and select project proposals, and to make necessary analysis of issues for the formulation and management of development policies. Accordingly, the Universities would be required to play a dual role both of which should be guided by the policies established. First, they would be responsible to keep on supplying and updating the productive resources of the men and women required to shape, guide and operate the organization. Secondly, the work programmes of these institutions will have to include a systematic review of the organization and the administrative set-up in search of appropriate models, concepts and alternative organizational behaviour for better results.

(ii) Development Management

20. The second major development challenge after the year 1990 up to 2008 would be the management of growth and managing the distribution of that growth. In other words, development management would become the order of the day, and hence there would be a greater need for the ample supply of development managers. Within a broader context, the challenge would require Africa's ability to manage effectively the available resources. The extent of such capabilities lies in the nature of policies pursued which hopefully would have evolved during the recovery period in relation to the composition and pattern of consumption; the promotion and allocation of investment; import and export regulations; income distribution and redistribution; and the institutional arrangements to formulate, execute and monitor those policies.

21. An obvious point to stress at this stage is that the effectiveness of the required capabilities would depend largely upon the knowledge, skills and attitudes of those who formulate and appraise the policies, those who approve and enact the policies, and those who execute the elements of the policies. In this connection, a team work approach seems to provide a useful strategy. However ensuring this type of team work could prove difficult if during the learning stage of those main actors, the inter-disciplinary approach to development was not taught nor practiced particularly by the institutions of higher learning.

22. The development management challenge could be formidable in the years ahead. The social sector and the productive sector will have to be carefully watched. A brief review of the elements, embodied within the challenge vis-a-vis these two sectors beyond the year 1990 as predicted by the ECA, would illustrate its magnitude and its consequences on the policies and

practices of African institutions of higher learning^{1/}.

(a) The Social Sector

23. Population: It is projected that by the year 2008, there would be a more balanced expansion in the population, and measure, to ensure a better utilization of the population as a resource dialectically directed towards its own self and its own development and welfare would have been in place. Nevertheless, the population would still be growing at a relatively high rate of 2.9 per cent reaching about 997 million. The population structure will still be characterized by a large young population with an estimated 42 per cent of the entire population being between the ages 0-14 and about 55 per cent in the 15-64 age group. More than 53 per cent of the African population would still be in rural areas with the urbanization rate reaching 44 per cent. In these circumstances, the need would be stronger to develop and operationalize rural-urban integrated development schemes to slow down the rural-urban drift and to institute meaningful income distribution programmes between 1990 and the year 2008. Additionally, education and employment strategies will have to be devised and put in place in ways that would not only accommodate, but would also intensify their adverse impact on the growth of population.

24. Employment: The agriculture sector will continue to be the biggest employing sector while in relative terms, the public sector labour absorptive capacity will become limited. In terms of sectoral distribution, the formal wage sector is projected to provide about 158 million job opportunities leaving nearly 15 per cent of the formal wage labour force openly unemployed. The nature of the challenge would therefore be the development of various programmes and projects, mainly through action-oriented research and development, to encourage the expansion of the economy's output in other sectors outside central government. A key to all this would be the availability of African entrepreneurs, increased technological development, and the intensification of research activities with emphasis on the agriculture sector.

25. Education: School enrolment ratios by the year 2008 are estimated as 83 per cent of all primary school children, 55 per cent of secondary level children and 16 per cent of higher education. This poses two challenges

1/ The Macro-economic setting used in this brief review is that which is predicted for Africa beyond the year 2000 if, and only if, present policies, programmes, attitudes and strategies are reformed. For a detailed presentation of these see "ECA and Africa's Development: A Preliminary Perspective Study;" Addis Ababa, 1983.

during the 1990's. First, the hopefully restructured school system will have to be maintained and improved upon to accommodate the growing demand. Secondly, the links between the various levels of education must be solidified with the higher institutions of learning setting the norms and keeping them in place by way of recruitment and requirement policies, teacher training programmes, and education development research activities. Given the dimension of the development management challenge, Africa would need a new generation of school leavers who are trained, motivated and active workers instead of the "classical educated elite" of secondary graduates in rural areas and university graduates in urban areas. Specifically, the African student will have to be trained and re-oriented in such a way that he or she would render productive services for the generation of agricultural outputs, the transformation of small and medium-scale industries, and the indigenization of the economy thereby forming a stimulating force in the development-conscious society.

26. Health: With the African population rising so would be the demand for health services in the next twenty years. The problems of under-nutrition and malnutrition particularly protein and calorie deficiencies, inequitable distribution of health facilities and purified water in favour of urban areas and the tendency for health policies to de-emphasize preventive measures at the expense of curative measures will continue to dampen whatever improvements that would have been made in the health sector. Consequently, the challenges would demand not only the provision of more doctors and support staff and increased health facilities; but would also demand narrowing the health gap between urban and rural areas; the provision of clean water; and pursuing policy measures that would improve nutritional levels in food intake and prevent diseases like malaria, trypanosomiasis, bilharzia, etc. The strategy would, among other measures such as undertaking a nutrition education campaign and instituting an incentive programme to redistribute and allocate medical personnel in rural areas, call for training para-medical personnel and doctors with rural orientation and appreciation as well as intensifying medical and food research by African institutions of higher learning.

(b) The Productive Sector

27. Agriculture Self-sufficiency: Africa would be faced with two major challenges in developing and sustaining the agriculture sector between 1990 and the year 2003. A balance will have to be maintained between (i) the volume of food production and food consumption and (ii) food production and the type of diet contained in the food mix. A major strategy would therefore entail broadening the production base by increasing the arable land for cultivation, improving irrigation and drainage, soil conservation to reduce water and land degradation, increasing yields through the application of a balanced package containing fertilizers, improved seeds, plant protection and power inputs. Nutritional education to influence individual food consumption habits, food diversification, and the development of efficient methods of food processing and preparation should also be part of the strategy. This means that there would be a pressing need for organized and extensive environmental sanitation programmes and health services in both rural and urban Africa.

28. Complementing these strategies would be those policies that focused on the equitable and judicious distribution of agricultural investment and the enlargement of national and sub-regional food markets, and those that would ensure effective pricing and fiscal measures in favour of agriculture producers, the promotion of small-scale agro-processing industries in the rural sector, and easy access of farmers to agricultural inputs extension services and credit facilities. Also needed would be measures to reduce pre and post-harvest losses which are usually inflicted by pests, diseases, weeds, natural decay and poor storage and marketing facilities. The strategy should also be concerned with creating and maintaining an efficient livestock production system. The ECA summed up the challenges which lie ahead in this sector in the following words:

"Livestock production systems will have to undergo radical changes if the projected targets are to be fulfilled. The strategies in this sector would have to include (a) major structural changes in the composition of livestock; (b) integration of livestock and crop production activities; (c) progressive substitution of red meat for white; and (d) changes in technologies. The main inputs will have to increase rapidly for the high growth production targets to be met. The first major input is animal feed including both roughages and concentrates and the second is

1/ "ECA and Africa's Development 1983-1008: A Preliminary Perspective Study," Addis Ababa, 1983, p.64.

veterinary services and medicines. For the ruminant species (cattle, buffalo, sheep and goat), the bulk of feed requirement will come from roughages in the form of grazing, crop byproducts and fodder grown specifically for feeding. Veterinary service should be concerned predominantly with preventive medicine, mainly with control of major diseases. Emphasis should be put on raising the average level of staff training and improving the organization and management of the animal health systems."

29. The role of higher education in bringing about a breakthrough to deal with this first challenge cannot be overemphasized. Amrik Singh substantiated this in his assessment of the impact of education on India's development. He concluded that "to a large extent the breakthrough (in wheat production) came about as a result of the establishment of agricultural universities in the beginning of the sixties,.....(and that) the research and extension work done in those universities led to dramatic improvements in certain sectors of agriculture".^{1/} Other countries in Asia and Latin America have embarked upon similar strategies to develop their agricultural sector. African institutions of higher learning will have to be called upon to take up this challenge if Africa is to be self-sufficient in agriculture production. Specifically, agricultural research centres, faculties and institutes will have to intensify and re-orient their teaching, research and extension capabilities towards assisting national programmes and farmers to develop and utilize new improved agricultural technology. First and foremost, African universities will have to produce for these centres, faculties and institutes, academic staff and research scientists who must, besides their basic theoretical knowledge, know the farmers' traditional technology; be capable of growing good crops and/or breeding healthy livestock under the farmers needs and conditions; and be interested in working with farmers who would be largely poor and illiterate. Secondly, they will have to produce field research workers and agriculture specialists, managers and economists who can undertake on-farm applied agronomic research, develop and/or improve high-yielding varieties, provide technical assistance and guidance to farmers, organize and communicate to farmers their know-how, the new methods and techniques, and the socio-economic gains to be derived from agriculture. Certainly, the development of the above agricultural manpower would require the re-orientation of present philosophies, policies and strategies of African agriculture education. This new direction should allow the agriculture graduate not only to have a sound understanding of the traditional technical areas of study such as plant and animal physiology, husbandry, nutrition, genetics, crop protection, handling, storage, soil science, soil,, water and livestock management, climatology, crops and animal processing, etc.; but should also have a taste of some socio-economic

^{1/} Singh, A.; "Indian Education Since 1947: An assessment", printed in Prospects: Quarterly Review of Education, Vol. V, No. 3, UNESCO, 1975.

subjects such as farm economics and management, agricultural and food policy and marketing.

Industrial Take-off: A major challenge by 1990 is for Africa to bring about substantive savings on her foreign exchange reserves. It is hoped that by then the region would have had a foundation on which to begin a desirable path of industrial development. It is also hoped that the basic policy reform and institutional framework required to place and keep the economy on that path and increasing would have been instituted. Therefore coping with the challenge of reserves calls for factors such as innovation, increased entrepreneurial capabilities, and re-orientation of consumer tastes away from imported goods towards domestically produced goods and services. The challenge would boil down to the establishment of a capital goods sector; an industrial intermediate goods sector and a non-agricultural basic consumer goods sector.

30. Focus of the capital goods sector should be on agricultural machinery, especially tractors given that the region's annual requirement for tractors is estimated to reach about 310,000 by the year 2008. Focus should also be placed on the development of animal traction equipment and passengers and commercial cars. Production of fertilizer, iron, steel and cement would need to be at appreciable levels to support the industrial growth. In the case of fertilizer, it is estimated that Africa would need to have at the minimum, 27 large-scale production units for nitrogenous, 20 for phosphate production and 5 potash fertilizers producing units, requiring about 67,000 managers and supervisors, 2000 health and personnel workers, 8000 engineers and chemists and 81,000 other skilled and unskilled workers. By the year 2008, Africa's total consumption level of iron and steel would reach 195 million tons. To obtain the desired projected self-sufficiency ratio of 31 per cent to be produced in Africa would require nearly 20,000 engineers and managers and 33,000 technicians.

31. Among the top priority of the basic consumer goods to be produced within the import substitution strategy are textiles and pharmaceuticals. With regards the former, the challenge would entail improving the quality of domestic textile products; increasing the price competitiveness of Africa's textile fabrics; ensuring a stable supply of quality raw cotton; and setting up specific programmes for the manufacturing of textile equipments. On the second it would constitute the need to provide locally 70-80 per cent of the total consumption and to develop capabilities for the manufacture of the major ingredients drawing on Africa's vast potential in traditional medicine. This would require roughly 130,000 workers 15 per cent of whom would need higher education in chemistry, pharmacy, biology, engineering, accounting and management.

32. The role of African institutions of higher learning will be more demanding in meeting these challenges. To get at the heart of the problem means the establishment of a viable and dynamic economy not by words but through the interaction of highly trained production managers, policy makers, policy formulators, industrial researchers and analysts, practicing scientists, technicians, trade negotiators, development legislators, financial brookers, analysts and managers, development economist, etc. working together as a team, these professionals will be obliged to deal with issues ranging from the formulation of policies and products to the provision of marketing information. Among the issues would be the need to (i) study and update existing agreements, commercial and industrial policies, credit regulations, organizational structures and lending practices of commercial and industrial development banks; and government fiscal and monetary measures and administration; (ii) carry out techno-economic studies so as to select suitable production technology and to find better ways and systems for forging external and internal technical co-operation; and (iii) establish and support faculties and centres of excellence to deal with the problems of technology with focus on applied industrial research with an aim to developing indigenous machines, equipments and manufacturing processes and to adopt foreign technology to local conditions.

33. One can easily see three aspects of the role to be played by African institutions of higher learning. First, a large number of the knowledge and skills required to undertake these studies, and establish and man the faculties will have to be produced by these institutions. Secondly, a mechanism will have to be in operation through which students, teaching staff, fellows, and visiting professors will apply themselves in finding technical and practical solutions and suggestions for meeting those needs. Thirdly, programmes and activities will have to be instituted and promoted to practicalize the interaction between the institution, the Government and the industrial community.

34. The extent to which Africa would meet the above social and productive development management challenges would depend to a large degree on the extent to which energy is generated and distributed, the various transport modes and infrastructure are developed, and the volume and level of intra-Africa trade and economic integration. Since it is assumed that by the year 1990, these development support factors would have taken on solid foundations, the challenges of the time would focus on their expansion which would correspondingly call for improved management and technical skills. Consequently, faculties or schools of management and technical institutions will have to take this factor into account when designing policies and strategies.

35. In view of the above circumstances, continuous exploitation and development of Africa's hydroelectric potential, coal deposit and natural gas would

be required in the decades ahead with resulting surpluses exported for foreign exchange to support development. Exploration research through consultancy services from the institutions of higher learning should be encouraged by both the institutions and national governments in the spirit of partnership. Secondly, with the region's air freight estimated to reach 46 billion by the year 2008, and air passenger traffic to reach 300 billion passengers km., with seaborne trade close to 1,500 million tons, policy makers and policy implimentors will have to gear their energy towards ensuring practical co-operation in and co-ordination of activities between African States in the fields of commercial airlines, railways development, maritime and port development and manpower training. Finally, the challenges emerging from the need for increased intra-African trade and economic integration would go beyond tariff negotiations and harmonization, and the preparation and ratification of treaties and protocols into keeping trade lines open, ensuring adequate supply of goods and payment schemes, and keeping economic grouping together. Marketing and product feasibility studies will accordingly be required, and acceptable formula found for the distribution of gains and losses derived from the various economic groupings and for the payment for goods and services traded across national boundaries. The African institutions of higher learning for tomorrow would have to incorporate such exercises within the general framework of students and staff research, university seminars and professors inaugural lectures.

36. A present day development need which could intensify to address the above development challenges of the future is the management and interplay of resources. Water, land, minerals, ore, animal and human resources will all have to be effectively managed so as to create value resources such as money, tools and implements, machines, houses, roads, communication networks, energy, manpower, etc. to begin and sustain the development path. Prerequisite to this management function is the need for a comprehensive system with staffing and institutional capabilities to systematically study and control the flow, type and size of any given resource as well as to ensure that a given resource base is adequately developed diversified and utilized. The crux of the matter again rest with the institutions of higher learning. Nearly all of the high-level diversified skills and knowledge required to study, control, develop, diversify, utilize inter-link and transform crude resources are produced by these institutions. As such appropriate policies and strategies will have to be initiated and deployed to guide the development and operation of the resource management framework.

IV: Towards a New Praxis

37. So far this paper has raised a few basic issues that need to be addressed in an attempt at rethinking higher education development in Africa. These may not be completely new and infact most of them are at the marqin of established thinking and are therefore being reinforced to lend support to the constant

call for meaningful policies and strategies to meet the development challenges of Africa in the years beyond 1990. Two major conclusions emerge which may offer a guide to further thinking and the taking of immediate action at national and regional levels if African institutions of higher learning are to play a useful role:

- (i) The challenges identified are too real and fundamental for Africa's well-being beyond 1990 and hence, they must be resolved by pragmatic approaches set within a more conceptualized development framework. Such a framework need not be constant and rigid as it would depend on factors such as the nature and results of the desired socio-economic transformation process over the next decade, and the perceptions of Africans in the years ahead. Needless to say that this would call for a great deal of conceptual thinking within the context of realities - a task which is not intellectually easy. Nevertheless, research at a broader level would be necessary to understand micro-macro linkages of these challenges within the process and to ensure their interconnections.
- (ii) The ultimate focus of the arguments raised is essentially the achievement of the type of development which embraces the need to transform rural Africa; achieve social economic and political maturity; and ensure Africa greater involvement in the international division of labour and commodity network. People consciousness towards development will have to be accordingly raised and maximum efforts made to restore and use their creative energies and African resources including knowledge and skills to bring about the required structural changes. Within this context, it is becoming obvious that Africa cannot solve her medium and long-term development problems by means of the prescriptions currently in use such as the dependence on aid, foreign loans, imported commodities, foreign high-level manpower; and the disintegration of programmes for the development of human resources, natural resources, technology and other value resources.

38. Several questions need to be raised and answered by this conference in the light of the above conclusions. For example, what should and could be done by African institutions of higher learning as their contribution in assisting Africa to face these challenges? Which, if any, type of dichotomy would result from the need to resolve the challenges posed if higher education policies and strategies were to be restructured and re-directed given the traditional conflict between academic knowledge and practical knowledge? How willing are the Heads of African institutions of higher learning to take off their gowns and caps and consolidate efforts, activities, and if possible, institutions so as to maximize the collective contribution towards Africa self-reliant and self-sustained development? How soon or rather how long can Africa wait to get from these institutions the types of skills, knowledge and attitudes that are

development-oriented, innovative and practically useful within the African context? Questions like these could go on and on, but what is more important now is the need for joint reflection and urgent action on the part of governments and institution heads particularly at a time when Africa has vowed to recover from the present economic mess and to build a lasting development foundation over the next five years. In order to stimulate the thinking process and to focus discussion on the above and other pertinent questions, the following observations and suggestions need to be considered.

(i) Focusing policies and strategies

39. There is general agreement that the three major functions of higher education institutions are teaching, researching and the dissemination of research results and knowledge. Explicitly put, these institutions are expected to produce the high-level technicians, professionals, managers, leaders, lawmakers, etc. that are needed to direct the nations' development effort. They are also responsible to produce the high calibre of teachers, scholars, researchers, school managers and administrators needed to sustain the production of the first category of high-level manpower, and for setting educational and ethical standards, maintaining quality and adjusting the education system to changing circumstances and needs. Finally, they are expected to provide the source of "analytical perspective" on society problems and are looked upon to generate required knowledge and innovative ideas in response to a constantly dynamic society. What is encouraging to note are that first, there is no disagreement among all parties concerned that each of these functions should be adequately provided for and sustained to have their optimum impact. Secondly, there is unanimous agreement that their ultimate goals is the enhancement of social, economic and political development of the nation.

40. Despite these acknowledgements, there is more to be desired in the set of policies and strategies adopted by most of these institutions in the discharge of the three functions. In the first place, most of the policies and strategies are allergy to evaluation and changes in the name of academic tradition. Secondly, the scope of their focus is usually limited concentrating only on intake and output requirements and organizational structure. Thirdly, they often neglect the development realities of Africa as they are fashioned in line with systems and structures that were inherited after independence. Therefore, if the dreams and aspirations of Africa are to become true, it is imperative that the policies and strategies be revisited. A possible starting point would be the establishment of policy and strategy committees with membership drawn from governments and higher education institutions at national and sub-regional levels. National Committees would be expected to crystalize various options taking into account the nation's manpower needs consolidate them into a national report to be considered by sub-regional committees preferably to be composed of national committees chairperson, rapporteurs and one government representative. The work of the sub-regional committees, with concrete recommendation would form a substantive agenda item for the next conference of Vice-Chancellors, Rectors and Presidents of Institutions of Higher Learning.

41. Exercises of this type should not lose sight of a few important factors. First of all policies will have to be formed outside the institutions, by governments, in relation to the way in which higher education in Africa is to be organized, managed and financed. Questions of autonomy, self-financing, interrelationship, accountability, the entire education structure etc. will have to enter the formula. Secondly, policies internal to the institutions themselves will have to be formulated in view of national development goals and strategies. Focus of such policies should be on student-staff relation; institutional planning with regards to physical facilities, self-development, inter-institutional co-operation and integration and seminars; and productivity and achievement vis-a-vis new discoveries and invention, quality of output, institution participation in community development and staff promotion. Thirdly, and more importantly, policies will have to be guided by and formulated within the context of an efficient human resources planning, development and utilization programme. The importance of focussing policies in this regard is to ensure that the type, quantity, and orientation of the skills and knowledge produced are those required for Africa's development. The point here is that though elements and emphasis of each focus may differ from country to country or from region to region, there are some common issues which need to be addressed adequately by the various internal and external policies for higher education in Africa beyond the year 1990. These well known 4 issues, which have and will continue to characterize the development of education in Africa particularly in the absence of an effective human resources management planning process, include inappropriate output mix, a deteriorating quality of outputs, high unit resource cost per graduate and per student-year, and inequitable and insufficient financial resources.

42. On the issue of strategy, new and radical approaches need to be found for integrating teaching research and extension activities. Few thoughts come to mind. For instance how plausible is a strategy which allows an undergraduate student to do two years of class work in the first instance, spend about six months to one year doing related practical work and then returning to complete the required course? What benefits would accrue to society if say graduate theses were made to solve a particular national or regional problem rather than the traditional "new frontier of knowledge" approach which plunders on theoretical conceptualization often under non-realistic assumptions while national problems become more and more complex for the government and people. Or would it be interesting for students and faculties to jointly undertake consultancy work, participate in development oriented seminars and workshops and interact more closely in the identification of research problems? Indeed, what strategy could emerge to bring about this integration?

43. Mandatory periodic secondment of teaching staff to government and the private sector could prove to be a useful strategy supplemented by a well

managed inter-institutional staff exchange programme beyond the dimension of the present external examination system practiced by most African Universities. Focus of such a strategy should be on strengthening the research function. Current research practices in Africa have generally failed to deal adequately with the social and political implications of people's participation, needs and environment thus limiting their impact on actual local development contradictions and conflicts. Given the development challenges in the 1990's: The research approach suggested by the need for a new strategy is one which would blend scientific research, policy-oriented research, action-oriented research, and problem-solving research. In other words, the purpose of research should be more than an academic exercise. It should instead become a means to investigate and find solutions to concrete and pressing problems and conflicts as they exist in the development process of the continent.

(ii) Formulating and implementing policies and strategies

44. It is one thing to have a clear focus on what direction policies and strategies should take, and quite another when it comes to their actual formulation and implementation. The importance of this second aspect cannot be over-emphasized since well formulated strategies are needed to guide the use of scarce resources and to minimize the duplication of efforts. By implication, the exercise involves detailed analysis of various factors internal and external to the institutions and the potential resource flows. ensuring factors internal and external to the institutions and the potential It also involves ensuring that the formulated policies and strategies are acceptable and practicable.

45. What a great challenge! A major question is, can the suggested national and sub-regional policy and strategy committees deal with this challenge? In part, the answer is yes; and in part it is no. A bigger framework will have to evolve not only for the formulation stage; but also for propelling the implementation of these policies and strategies. A possible approach which comes to mind, and one that could have far reaching consequences, is for Africa to embark upon a 10-year higher education development programme. For the purpose of discussion and familiarity, the programme could be known as "Higher Education Development Decade for Africa, 1988-1998".

46. Assuming that this suggestion is desirable, a Development Decade Committee will have to be established to develop, co-ordinate and monitor the project. Secondly, a project document, outlining the schedules, inputs, and outputs of the decade programme will have to be developed to be reviewed and approved by the Development Decade Committee. Activities of the National and Sub-regional Committees should be featured in the project document. Other possible

national and sub-regional committees whose activities should be also featured are institution planning committees, textbook and curriculum development committees and institution building committees. The most single output of the decade programme could be a firm foundation upon which African higher education will be built during the preceeding fifty or so years. For example, elements of the foundation could include (a) a set of policies and strategies that would make higher education more responsive to the development needs and challenges of Africa; (b) a successive rolling development plan of action towards consolidation, equitable distribution and division of function in the activities of African institutions of higher learning; and (c) the development of regional capabilities in the writing and publishing of African textbooks and case study materials.

47. What a greater challenge! Can the Third Conference of Vice-Chancellors, Rectors and Presidents of African Institutions of Higher Learning Cope with this challenge? In our view the answer is yes. First, the Development Decade Committee can be formed now. Secondly, the project document can be commissioned now. Thirdly, National Committees chairpersons can be designated now. Fourthly a schedule of activities can be formulated now. Finally, but more fundamental, the Conference can resolve today to initiate and embark upon a long-term high education development programme aimed at assisting African governments transform the social and economic conditions of Africa.

(iii) Strengthening graduate education, research and extension activities:
a possible approach

48. The need to establish an African "think tank" institution primarily to undertake research on development strategies and international economic relations, and to provide the necessary guidelines for a more systematic and forward looking approach to the formulation and review of policies and strategies relating to major development issues confronting Africa, was felt a long time ago. Noting this need, and conscious of the fact that Africa's ability to effectively study, analyse and evaluate strategic issues is a prerequisite to policy making and development, the ECA Conference of Ministers, through resolution 434 (XVII), called for the establishments of an autonomous African Institute for Future Studies^{1/} to provide a forum where African high-ranking policy makers, other national leaders, scholars and researchers could study in depth, identify, examine critically and reflect on the economic, political and other matters and problems of international relations facing Africa and those affecting Africa's present and future course of development with a view to providing member States with rational and appropriate guidelines for policy

1/ "ECA Conference of Ministers Report"; Resolution 434 (XVII), April, 1982.

formulation and action^{1/}

49. While developments of the 1980's do suggest the urgency of establishing such institutional capabilities, those anticipated beyond 1990 demand that the scope and framework of such an institution be broadened to aggregate the three major functions of higher education institution, particularly in the post graduate programmes and to make the greatest possible impact on Africa's future development. For example, how desirable and feasible would it be to develop a few selected African graduate schools into a network within one framework and one philosophy to serve as a pan African Graduate Institution with overall capacity to accommodate say at least 30,000 graduate fellows in one academic year and to be simultaneously engaged in teaching, researching and extension work? Could such a structure make the necessary contribution towards Africa's long-term development? Could it serve as a "focus of knowledge" and a "think tank" for fostering research and development, intra-African co-operation and the development of development-oriented managers, leaders, thinkers, administrators etc.? What could be the rationale for embarking upon such project, and what specific benefits and objectives would the institute seek to achieve?

50. Finding suitable answers to the above questions could constitute part of the agenda for the proposed national and sub-regional committees. Preliminary answers to these questions could also be derived today in this forum. In any case, there is one point that seems clear and which needs to be taken into account when the above questions are being considered: Africa will have to internalize adequate research and technological development efforts if she is to move up the development ladder in the years beyond 1990. This effort will require, among other things, the availability and utility of appropriate high-level African skills and knowledge, as well as the assurance of sound policies and commitment towards effective development. Sadly, existing African institutions of higher learning and graduate programmes in particular are so balkanized, often ill-equipped and inappropriate that they cannot adequately meet this challenge. Despite this dilemma, Africa is faced and will continue to be faced with the challenges of development. Among the radical measures that will have to be taken are those geared towards the development and utilization of a core of high-level African manpower in various fields at minimum opportunity cost; and the re-orientation of the structure, content, strategy and philosophies of high level education in Africa. The desire to see Africa make this effort forcefully and collectively could form the general rationale for the development of a Pan African Graduate institutional network with capacity to:

- (a) Identify and define major development issues and problems facing the African region in its efforts to promote a self-reliant and self-sustaining development;

1/ PA/M/ACAPPAS/1/82; "Proposed African Institute for Public Policy Analysis and Future Studies"; UNECA, Addis Ababa, January, 1982.

- (b) Undertake multidisciplinary studies, analysis and evaluation of development issues with a view to providing guidelines that will promote a more scientific and systematic approach to the formulation of development policies and strategies;
- (c) Provide for African policy-makers at the highest level, including national leaders, chief executives from the public and private sectors and researchers, scholars, graduate students persons of outstanding talents and experience;
 - a forum for sharing ideas and experiences and fostering mutual understanding;
 - an opportunity for reflection and examination of studies of major issues of development and international co-operation and considering alternative approaches for African initiatives or action.
- (d) Undertake advanced public policy analysis and periodic consultations and assess alternative policies and their consequences for the economic and social development of Africa;
- (e) Provide a reference base to African governments and African inter-governmental organizations in their efforts to elaborate and apply policy guidelines on major development issues in relation to their own circumstances and in pursuance of their long-term development goals;
- (f) Foster co-operation among African States and institutions in pursuing harmonized development policies and strategies within the context of multinational, sub-regional and regional technical and economic co-operation and in evolving appropriate policies and strategies for resolving development problems and issues common to them;
- (g) Producing highly trained and qualified manpower in strategic fields of study by:
 - developing, providing and monitoring opportunities for scholarship, advanced studies, thinking, research and the exchange of views, knowledge and information with respect to major development issues and problems facing Africa;

- designing, administering, preparing students for and awarding of masters and doctoral degrees within the context of African realities and development needs and challenges;
- enhancing the rate of knowledge and its effects on the content and methods of teaching, particularly on self-teaching technologies, learning how to think and influencing students future expectations, behavior and choices.

51. Certainly, there are a number of potential problem areas which, if not carefully considered, could hinder the implementation of such an institution. These include the problems of resource mobilization, site selection, consolidation of activities and policies and credibility. Nevertheless, when one thinks of the development challenges which lie ahead and the tremendous drain on Africa's scarce foreign exchange and brain power resulting from training graduate students outside of Africa, the taking of bold steps such as the conceived above for overshadowed the magnitude of these problem areas. As indicated throughout this paper, no matter how the wind blows, African institutions of higher learning will have to play a more miningful role in the structural transformation of Africa beyond the year 1990.



**UNITED NATIONS
ECONOMIC AND SOCIAL COUNCIL**



Distr.
LIMITED

E/ECA/AAU/ED/86/3
31 December 1986

Original: ENGLISH

ECONOMIC COMMISSION FOR AFRICA

ECA/AAU Third Conference of Vice-Chancellors,
Presidents and Rectors of the Institutions
of Higher Learning in Africa

Harare, Zimbabwe, 19-20 January 1987

LC/NAIROBI.

AFRICA'S DEVELOPMENT PRIORITIES AND THE ROLE OF
THE INSTITUTIONS OF HIGHER LEARNING:

THE NEXT FIVE YEARS

✓

TABLE OF CONTENTS

	<u>Page</u>
A. INTRODUCTION - - - - -	1
B. MEDIUM-TERM PRIORITIES FOR RECOVERY AND DEVELOPMENT - - - - -	3
(a) Africa's Priority Programme for Economic Recovery, 1986-1990 - - - - -	3
(b) Africa's Submission to the Special Session of the United Nations General Assembly on Africa's Economic and Social Crisis - - - - -	6
(c) United Nations Programme of Action for African Economic Recovery and Development, 1986-1990 (UN-PAAERD)	12
C. THE ROLE OF THE INSTITUTIONS OF HIGHER LEARNING IN THE NEXT FIVE YEARS - - - - -	14
(a) Better Management of the African Economies - - - - -	14
(b) According Priority to the Agricultural Sector - - - - -	17
(c) Africa's External Debt Problem - - - - -	18
(d) Involving the People in the Development Process - - - - -	19
D. THIRD LEVEL EDUCATIONAL POLICY REQUIREMENTS FOR THE IMPLEMENTATION OF APPER - - - - -	20
(a) Training for Recovery and Development - - - - -	20
(b) Research in the Service of APPER - - - - -	20
(c) Mechanisms for a Continuous Dialogue with Government - - - - -	21
E. RECOMMENDATIONS FOR ACTION - - - - -	21
(a) At the National Level - - - - -	21
(b) At the Sub-Regional Level - - - - -	22
(c) At the Regional Level - - - - -	23
F. CONCLUSION - - - - -	24

A. INTRODUCTION

The efforts of African governments to lay the foundations for the implementation of the Lagos Plan of Action were thrown off gear by the severe conditions of economic and social decline which culminated in an unprecedented socioeconomic crisis in 1984. The African Heads of State and Government had committed themselves to achieving food selfsufficiency within the continent by 1985. The achievement by that year was a food crisis in Africa with 27 food-aid dependent countries and a regional food requirement shortfall of 3.3 million tons. The short-term objective of attaining at least 1 per cent of world industrial production by 1985 and laying the foundations for the development of the basic industries in Africa were also taken off course. In 1985, the challenge to African industrialization policies was to keep existing industries afloat and to seek ways and means of grappling with declining rates of capacity utilization which had fallen by more than 50 per cent in some African countries. As concerns natural resources development, the Lagos Plan of Action had set itself the noble objective of formulating measures that would eventually allow African governments to exercise sovereignty over the exploration, processing, exploitation and conservation of their natural resources. But by 1985, drought and desertification had ravaged huge chunks of Africa's natural environment, severely affecting woodlands, farmlands, forests, rivers and lakes; and a hostile international economic environment made sovereignty over the exploitation and use of mineral resources a distant dream. Objectives to develop and better utilize Africa's human resources were not to be met effectively by 1985. By that year, an estimated 40,000 skilled Africans had been forced to flee the oppressive social and economic conditions imposed by the crisis, to seek refuge in more enabling environments in the developed world. Institutions of education and training, starved by the harsh financial and economic conditions prevailing had declined in qualitative terms; and an estimated 22 million persons were openly unemployed while some 96 million were underemployed. In the field of transport and communications, the Lagos Plan of Action had envisaged measures to develop infrastructures with a view to facilitating the integration of the region and enhancing intra-African trade. However, the drought and famine of 1984 dictated a shift of emphasis when it became clear that national transport and communications infrastructures were so poorly developed that it was difficult to even bring food and other relief items to reach the drought- and famine-stricken in remote areas. The impact of the world recession and the ensuing protectionist policies adopted by governments of the developed world, on African terms of trade, the ensuring foreign exchange problems experienced by many an African country and the deleterious effects of these on development financing, underscored the region's deep dependence on external markets for sustenance, and vindicated the Lagos Plan of Action in its call to remove within-region trade barriers to facilitate the development of intra-African trade, and to diversify Africa's present trade patterns both structurally and geographically. Above all by 1985, the consequences of the social and economic crisis in Africa amplified the need for all African countries to work in concert to reach the long-term goal of an African common market by the year 2000.

By 1985, it had become apparent that in the implementation of the Lagos Plan of Action and the Final Act of Lagos, African countries had taken one step forward and two steps back. The Assembly of Heads of State and Government of the OAU at its 21st session in July 1985, conceded that "five years after the adoption of the Lagos Plan of Action and the Final Act of Lagos, very little progress has been achieved in the implementation of the Plan and the Act".^{1/} They accepted with candour that "if most of the measures recommended in the LPA had been implemented, the ravaging effects of the current world recession and drought on African economies would have certainly been minimized."^{2/} The Heads of State and Government attributed this to the difficulties encountered in changing the economic structures inherited from colonialism, the prevailing unfavourable international economic conditions, and the pursuit of national development policies that have tended to perpetuate, if not reinforce these economic structures and relationships; the weakness of Africa's skilled manpower base and the resultant inability of Africa's human resources to internalize the development process; serious structural problems such as the outward orientation of African economies, insufficient internal complementarities and a narrow economic base; and the emergence of unforeseen adverse factors such as the natural disasters that Africa lived through in the first few years of the 1980's. The fact is that the way these factors combined with internal national difficulties, weakened the African economy to a point that it needed first to be rehabilitated in order to be able to move towards attaining the goals of the Lagos Plan of Action. In other words, development priority for Africa was to institute short and medium-term measures to first achieve economic recovery and full rehabilitation as a precondition for the implementation of the Lagos Plan of Action.

To this end, the 21st ordinary session of the Assembly of Heads of State and Government of the Organization of African Unity convened in Addis Ababa in July 1985 and decided on the medium- and short-term priorities required during the period 1986-1990 to revive the African economy and pave the way for national and collective self-reliance and selfsustained growth and development of the African economies. These measures are detailed in Africa's Priority Programme for Economic Recovery, 1986-1990. The Priority Programme (APPER) doubled up as the framework within which another important document, Africa's Submission to the Special Session of the United Nations General Assembly on Africa's Economic and Social Crisis, was adopted by the First Extraordinary

^{1/} OAU: Africa's Priority Programme for Economic Recovery, 1986-1990, 21st Session of the Assembly of Heads of State and Government of the OAU, Addis Ababa, 1985 P.4.

^{2/} Ibid., P.3.

Meeting of the ECA Conference of Ministers and the 15th Extraordinary Session of the OAU Council of Ministers, held during 28-29 and 30-31 March 1986 respectively, and presented to the 13th Special Session of the United Nations General Assembly, held in May/June 1986, which was entirely devoted to a discussion of Africa's economic and social crisis. The African Submission translated APPER into an action-oriented programme. It outlines actions that are required to launch Africa into a process of economic rehabilitation, recovery and development. It recognizes that such a process calls, not only for determined and purposeful concerted African actions, but also for joint co-operative actions between Africa and the international community. It quantifies the resources required for the action programme, estimates what Africa can provide and calls on the international community to provide the rest to enable Africa to achieve its objectives. The 13th Special Session of the UN General Assembly unanimously adopted the United Nations Programme of Action for African Economic Recovery and Development, 1986-1990 ^{1/} (UN-PAAERD), which is largely based on the African Submission. The UN-PAAERD is essentially a compact or shared partnership in which "Africa is committed to provide the necessary framework to launch long-term programmes for self-sustaining socio-economic development and growth" and the "international community is committed to assist Africa in achieving this objective". Based on this partnership, the UN-PAAERD details the specific actions that are required from African countries and the international community to bring about a lasting process of development in the continent as well as the mechanisms that are required at all levels to ensure the successful implementation of the Programme and to follow-up and report on the process of implementation.

This paper will review the new set of short and medium-term priority measures and actions identified for Africa's recovery and development during 1986-1990 as outlined above, with a view to defining the role of Africa's institutions of higher learning in the implementation of these measures.

B. MEDIUM-TERM PRIORITIES FOR RECOVERY AND DEVELOPMENT, 1986-1990

(a) Africa's Priority Programme for Economic Recovery, 1986-1990 (APPER)

The 20th ordinary session of the Assembly of Heads of State and Government of the OAU, held in Addis Ababa from 12 to 15 November 1984, adopted APPER and decided to concentrate on the Programme during 1986-1990 "to pave the way for national and collective self-reliant and self-sustained growth and development".^{2/} While APPER is firmly and incontrovertibly rooted in the Lagos Plan of Action, it addresses itself principally to achieving a breakthrough in structural transformation by focussing on a few sectors, the pivot of which

^{1/} United Nations Programme of Action for African Economic Recovery and Development, 1986-1990, General Assembly, A/RES/S-13/2, 13 June 1986.

^{2/} OAU: APPER op.cit. P.1

is the agricultural sector during 1986-1990. Thus, food and agriculture commands top priority, followed by industry, human resources, science and technology, transport and communications and trade and finance. These latter sectors are to facilitate the structural transformation of the agricultural sector.

Top priority is accorded to food and agriculture for very obvious reasons. This sector must be developed to serve as the pivot of development in Africa, generating growth in the other economic sectors and serving as the hub of self-reliance and self-sustenance for the continent. A decimated agricultural sector can only guarantee the persistent dependence and underdevelopment of the continent. To rehabilitate this sector, food production must be increased through the elimination of the food crisis. This, APPER emphasizes, can only be achieved through the institution of effective early warning systems; the setting in place of effective mechanisms to take emergency measures to tackle drought or other adverse climatic conditions; the adoption of incentives policies for increasing agricultural production and productivity; increasing and strengthening agricultural institutions and infrastructure; developing and utilizing more efficiently Africa's water resources; improving agricultural production information systems; developing animal and fisheries production; and preserving forest resources. To achieve these, certain structural reforms are called for and action is required to strengthen agricultural research and development; improve training of agriculturists, agronomists and agricultural extension personnel; increase areas under cultivation; pursue rural development with greater vigour; and foster among Africans a greater propensity to consume local products.

APPER recognizes that if the food and agriculture sector should be developed effectively, substantial support must be given to other contiguous sectors. These include transport and communications, particularly rural and access roads improvement to increase efficiency in food distribution and marketing; industry, for the production of agricultural tools and equipment; energy, to assist in the modernization of agricultural production and assist rural development; special education, training and research programmes for the food and agriculture sector.

A special set of measures are recommended for combatting drought and controlling desertification. These include the drawing up of national drought and desertification control plans, public education on drought and desertification, the establishment of a North African green belt, and the drawing up of an international hydrological map for Africa.

The development and utilization of human resources is also given prominence. APPER asserts that "the attainment of the objectives of the LPA and the FAL depends, in the final analysis, on the development of a wide range of human resources required for the formulation, implementation and monitoring of

programmes covering the entire spectrum and sectoral activities in the economic development process".^{1/} Accordingly, it recommends action to better plan Africa's manpower development, improving education and training systems and instituting measures that would reduce the brain drain from the continent and ensure a much better utilization of Africa's human resources.

In the field of science and technology, APPER stresses that "no country has attained any break-through in its economic development without the development of its science and technology base."^{2/} It goes on to propose measures to develop national science and technology programmes; to strengthen mechanisms for the development of science and technology, for R + D and for co-operation within the region.

APPER also makes provisions for the development of transport and communications and for improving trade and finance within the region. In the area of trade, African Governments are urged to increase intra-African trade and to institute measures to strengthen domestic trade. As concerns finance, APPER calls for an increased use of existing clearing-house facilities and for the development and integration of existing arrangements into an eventual African payments union. Efforts to establish the African Monetary Fund should also be intensified.

Measures are recommended for intra-African co-operation in the exploration, exploitation and development of energy technologies and equipment, for setting up of institutional machineries to monitor the implementation of energy policies and for evolving programmes of training and research in energy development.

Special attention is given to Africa's external debt and measures to tackle the continent's debt problems are recommended for implementation on short-, medium- and long-term bases. These measures touch on the need to establish national machineries for debt monitoring and management; draw up an inventory of all external debt contracted by the state, public parastatal and private institutions; control external borrowing; pursue development investment policies that would minimize demands for foreign exchange. African countries should also step up co-operation in this area by inter alia recycling net reserves within the region; encouraging indigenous investors; strengthening regional payments and clearing arrangements in order to increase intra-African trade; reducing the need for foreign exchange and thus the need for external borrowing; promoting the local production of goods and services and the establishment of joint production ventures.

APPER recognizes the need for all African Governments to agree on a common platform for action to "revitalize sub-regional and regional economic

^{1/} APPER, op.cit., P.8

^{2/} Op.cit., P.8

co-operation for the recovery of the economic situation of Africa".^{1/} It defines the areas of priority action at the sub-regional and regional levels. These call for co-operation for the implementation of the Special Programme of Action for the Improvement of the Food Situation and Rehabilitation of Agriculture in Africa; increased co-operation in the field of transport and communications, and for the rapid implementation of projects under the United Nations Transport and Communications Decade for Africa and the Industrial Development Decade for Africa Programme. Special measures are recommended for co-operation in the development of trade and finance, science and technology and human resources. These call for harmonization of policies within the region and the greater use of African experts in development projects.

Finally, APPER noted that "it is first and foremost incumbent upon Africa itself to define conditions and assume direct responsibility for the rehabilitation of its economy."^{2/} However, in view of the serious deterioration of the African economy in the last several years, it would be difficult for African countries to undertake single-handed, all that is required to achieve full economic recovery and rehabilitation. Accordingly, the African Heads of State and Government called for the convening of a Special Session of the United Nations General Assembly to discuss the critical economic situation in Africa and solicit the support of the international community in the implementation of the Priority Programme.

In response to this call, the Special Session of the General Assembly was convened from 27 May to 1 June 1986. Africa presented its case in a document entitled "Africa's Submission to the Special Session of the United Nations General Assembly on Africa's Economic and Social Crisis". The main aspects of this Submission will be reviewed in the following section.

(b) Africa's Submission to the Special Session of the United Nations General Assembly on Africa's Economic and Social Crisis

The Submission stresses that the severe and prolonged drought, which ravaged Africa during 1983-1985, had merely accentuated Africa's more pervasive and structural problems and that unless the fundamental factors underlying Africa's economic and social crisis are attacked at the root through durable and long-term structural transformation, Africa will remain the sick child of the international community. The Submission goes on to explain that the underlying causes of Africa's underdevelopment are the lack of structural transformation and the pervasive low level of productivity, aggravated by exogenous and endogenous factors. The endogenous aggravating factors "include the structural imbalances evident in the great disparities in urban and rural development and in income distribution, the divergent trends in birth and death rates,

^{1/} APPER, op.cit. P.34

^{2/} Ibid.

the inadequacy and/or misdirection of human and financial resources, inappropriate economic strategies and policies, poor economic management, institutional and physical infrastructural inadequacies, political instability and the prevalence of social values, attitudes and practices detrimental to development."^{1/} Among the more serious aggravating exogenous factors are "the international recession, the collapsing commodity prices, adverse terms of trade, the decline of ODA in real terms, increased protectionism, high interest rates and the heavy burden of debt and debt servicing obligations of African countries."^{2/}

The Submission recognizes that nothing short of a fundamental restructuring of the African economies coupled with the necessary policy re-orientations and reforms could save the African economies from collapse and that the first step towards this calls for full commitment to the implementation of APPER. The Submission also stresses that the task of structural transformation also calls for a new approach to development assistance and hence proposes that a "new set of relationships - a compact - be forged between Africa and the international community which will be built around the principle of partnership in which massive support for Africa will be strengthened by the growing determination on the part of the African people and their Governments to pull themselves up by their own bootstraps through the making of exceptional sacrifices in mobilizing domestic resources, to optimize the efficient use of such resources and to back all these up with appropriate adjustments. On their part, the international community will commit themselves to a new approach in their co-operation with Africa which will be based partly on substantial increases in the flow of highly concessional resources and, no less important, to putting in place essential economic policy measures which will enhance the capacity of Africa in its efforts to mobilize its domestic resources and will considerably ameliorate those exogeneous factors"^{3/} described above.

On the side of African countries, the Submission pledges to implement APPER and in particular undertake the following national, subregional and regional actions.

- (i) to create and sustain national emergency preparedness capacity, particularly through the institution of effective early warning systems and national food security arrangements to cope with future emergencies and catastrophes;
- (ii) to substantially increase investments in agriculture in order to raise levels of production and productivity. The estimated total investments of US\$57.4 billion will be used to increase food

^{1/} Africa's Submission to the Special Session of the United Nations General Assembly on Africa's Economic and Social Crisis, P.12.

^{2/} Ibid.

^{3/} Africa's Submission, op.cit. P.14.

production, develop and improve arable lands, develop animal and livestock production, increase mechanization of agricultural production, improve storage and marketing, develop agricultural research and extension services, strengthen water resources management and intensify programmes of reafforestation and drought and desertification control. Appropriate policy support will be given by way of better incentives and credit schemes, more realistic producer prices, more agricultural R & D and more efficient distribution and marketing systems;

- (iii) to develop other sectors in support of agriculture. These include the rehabilitation and development of agro-based industries to allow for the production of more and better agricultural tools and equipment, fertilizers and pesticides, spare parts etc.; the development of transport and communications to allow this sector to lend support to agricultural production, distribution and marketing, the development of intra-African trade, and the physical integration of the region; and the diversification of trade structures in terms of both commodities and markets with a view to developing domestic, and promoting intra-African trade;
- (iv) to tackle the problem of drought and desertification by undertaking afforestation and reforestation programmes on a massive scale, developing water resources, protecting common eco-systems, and developing alternative sources of energy to replace woodfuel;
- (v) to improve the management of the African economy by raising the efficiency of public management systems, institutions and practices with particular attention being paid to management of public enterprises, financial management, optimizing the use of resources, the reduction of foreign exchange leakages and the better management of foreign debt and external assistance.
- (vi) to adopt comprehensive policies aimed at better planning, developing and utilizing human resources, particular attention being given to the need for a radical change in the educational system to ensure that the skills, knowledge and attitudes relevant to development are produced and that human resources are better utilized in enabling socio-political environments that would promote efficiency and reduce the brain drain.

The African Governments also undertake to strengthen their social and economic institutions to make them more responsive to the challenges of development, consolidate African co-operation; and institute other policy reforms that may be required for structural adjustment and economic recovery.

The Submission calls for support for APPER on the part of the international community. The Submission requires that the international community:

- (i) shows "commitment to a common point of reference" in order to accept APPER as the basis for the reordering of assistance programmes. This acceptance is necessary "to enable the compact between Africa and the international community to have a universal basis for joint programming, elaboration of policy frameworks and other arrangements for the recovery of the African economies and their eventual transformation";
- (ii) improve the co-operation structures and environment by shifting from project to programme support in the identified priority areas; using more African expertise in programme development and implementation; strengthening the co-ordination of aid policies; instituting mechanisms for monitoring donor commitments and the disbursement of aid; reviewing the effectiveness of technical assistance in Africa;
- (iii) improve the external environment which aggravated Africa's economic problems by adopting policies that are conducive to growth rather than contraction of the world economy; removing protectionist policies that restrict the entry of African products in important markets; changing trade policies that constrain Africa's export and diversification programmes; developing structures that would set fair and remunerative prices and stabilize the earnings of African exports; providing support to African countries in the processing, marketing, distribution and transportation of their export commodities;
- (iv) agree on measures that would alleviate Africa's heavy debt burden which constraints Africa's chances for full economic recovery by converting ODA debts and interest obligations into grants; converting debt and debt-service payments during the life of APPER into long-term loans repayable over 30-40 years on concessional terms with a grace period of 10 years; improving the existing framework for commercial debt renegotiation; increasing the concessionality of resource flows to Africa;
- (v) support Africa's policy reforms by increasing non-project aid especially balance-of-payments support; easing procurements requirements and administrative procedures in order to speed up disbursement of assistance; increasing aid budgets; and depoliticising aid;
- (vi) support APPER financially by filling the resource gap between what African countries will mobilize domestically to implement the priority programme - US\$16.5 billion per annum - and the total resources required - US\$25.6 billion i.e. an annual contribution to APPER of US\$9.12 billion, or US\$45.6 billion over the five-year period;

- (vii) in addition to providing the amounts required to fill the resource gap, ensure that the external factors that worsened economic conditions in Africa particularly the heavy debt and debt servicing burden will not make it impossible to fully implement the recovery programme, by providing resources in the form of grants or on concessional terms to cushion the impact of debt repayment commitments and more specifically by providing between US\$23.7 billion and US\$33.6 billion not only to ease debt and debt-servicing obligations of African countries but also to cover the foreign exchange requirements of APPER which are estimated at US\$9 billion.

The Submission also amplifies areas of concern to the various subregions and to groups of countries within the region:

- (i) drought and desertification: these climatic and ecological conditions affect all the countries in the Sahel plus the Sudan, Ethiopia, Somalia, Mozambique, Botswana and Lesotho. The problems of drought and desertification with which these countries are faced make it difficult for them to implement their recovery programmes effectively, particularly the attainment of food self-sufficiency. The priority areas of action for these countries are afforestation and re-afforestation, the development of water resources, new sources of energy, and new droughtresistant crops.
- (ii) the island nations like Seychelles, Mauritius, Madagascar, Comores face difficulties of communications with the mainland countries. Their special need is the development of transport and communications links with mainland Africa. They also have to contend with periodic natural disasters such as typhoons, cyclones and floods. Action will be required to give them added protection against these natural disasters.
- (iii) the problem of being land-locked also pose particular difficulties to some countries in east, southern and central Africa. Provision of access to ports in neighbouring countries and to transit facilities would greatly assist in developing their trade potentials;
- (iv) The least developed countries, some of which are drought-prone or landlocked, also need programmes in agricultural research to develop high-yield seeds, to diversify crops and to control pests, and livestock and animal diseases.
- (v) the countries of southern Africa face the serious problem of political and economic destabilization posed by the acts of aggression from the racist South African regime. They need programmes to increase their resilience against these acts of aggression and to reduce their dependence on South Africa for goods and services, money and finance.

The Submission also has a section dealing with the National Profiles (volume two, part I). These profiles were drawn up on the basis of information collected by joint OAU/ECA missions which visited every member State. Each country profile gives a short review of overall economic performance since 1980; describes the main areas of focus of the national recovery programme; highlights policy reforms in support of the programme; estimates resource requirements for full implementation of the Programme, showing how much has been or is planned to be mobilized domestically and externally, an estimate of total available resources and the expected resource gap which will be filled through assistance from the international community. Constraints of debt servicing during the period of programme implementation are also quantified in dollar terms in the profiles.

Areas of priority in which support is called for within the programme are:

- (i) agriculture
- (ii) other sectors in support of agriculture
- (iii) drought and desertification
- (iv) human resources development

The total cost of the programme is US\$128.1 billion of which 44.8 per cent or US\$57.4 billion goes to agriculture; 46.9 per cent or US\$60.1 billion to other sectors in support of agriculture; 2.7 per cent or US\$3.4 billion to drought and desertification; and 5.6 per cent or US\$7.2 billion to human resources development. Of the total cost of APPER, US\$82.5 billion will be mobilized domestically by African Governments, whereas the rest, some US\$46 billion, should be funded by external assistance.

However, the Submission acknowledges that these massive amounts of resources will only produce the desired results if certain adjustment policies are undertaken. In agriculture, these include the provision of incentives to producers; improvements in the provision of economic, social and administrative services to the rural sector; a more generous provision of inputs into agricultural production; removal of technological and institutional bottlenecks; improvement in the performance of public marketing agencies, co-operatives and private entrepreneurs in agriculture.

For industry to support recovery in agriculture, a set of measures are proposed to increase installed capacity utilization. These include the allocation of more foreign exchange to industries, incentives to entrepreneurs to increase exports and protection of locally produced goods.

Domestic resource mobilization needs to be improved and budgetary and fiscal policies and practices would have to be redesigned to improve resource mobilization and use. The improvement of overall financial management capabilities is also important if the objectives of APPER are to be attained.

Other stringency measures have to be adopted to curb public spending such as reducing the size of public sector employment, wage and salary freezes etc., and measures have to be adopted to increase savings.

The Special Session of the General Assembly of the United Nations responded to Africa's Submission on the Economic and Social Crisis by adopting the United Nations Programme of Action for African Economic Recovery and Development 1986-1990 (UNPAAERD). The following section highlights the main strands of the UNPAAERD.

(c) United Nations Programme of Action for African Economic Recovery and Development, 1986-1990 (UN-PAAERD)

The UN-PAAERD agrees with the analysis of the critical economic situation made by the African Governments in the Submission to the Special Session of the General Assembly. The international community acknowledges that "the vulnerability and the fragile nature of the African socio-economic structures have now become fully apparent as a consequence of the dramatic effects of drought. The African Governments have initiated actions aiming at long-term structural transformation of their economies which is vital for breaking the vicious cycle of poverty and underdevelopment and for paving the way for self-reliant economic development. Notwithstanding past efforts, it is imperative that the international community intensify its co-operation and substantially increase its support for the African effort."^{1/} They concede also that the recent international economic recession, the decline in commodity prices and financial flows, adverse terms of trade, increased protectionism and high interest rates, a heavy debt burden and debt servicing obligations have converged to worsen the economic situation in Africa. The international community in the UN-PAAERD agreed that an immediate task is to assist African Governments in their effort to restore productivity to appreciable levels in all sectors, but particularly so in the food and agriculture sector, and decided to "respond positively to the African call for a new era of co-operation based on a spirit of genuine and equal partnership which is an essential element for harmonious and mutually beneficial economic co-operation in an interdependent world."^{2/}

The UN-PAAERD is a programme of mutual commitment between Africa and the international community. This mutual commitment consists of two central elements:

- "(a) The determination and commitment of the African countries to launch both national and regional programmes of economic development as reflected in Africa's Priority Programme for Economic recovery 1986-1990, adopted by the African Heads of State and Government in July 1985;
- (b) The response of the international community and its commitment to support and complement the African development efforts."^{3/}

^{1/} UN-PAAERD, P.3

^{2/} Ibid., P.4

^{3/} Ibid., P.5

On the basis of Africa's commitment, the international community agreed to improve the quality and modality of external assistance and co-operation. This would be achieved by placing greater emphasis on programme support in the areas of priority; improvement of the delivery of production inputs; speedier disbursement of funds; increasing concessional assistance, particularly the grant element; making greater use of local expertise, techniques and equipment and increasing training of local personnel; increased co-ordination of aid policies for greater effectiveness; increased assistance to meet recurrent and local costs of on-going and new projects.

In addition to these, the need was expressed for the external economic environment to be improved in favour of Africa's economic recovery and development. In this regard, it was agreed that donor countries should formulate trade expansion policies that would eliminate protectionism and lift non-tariff barriers so as to provide African products a breathing space in the world market; and make concessions in the interest of African countries in the concluding of commodity and compensatory financing agreements. The developed countries should also help African countries increase their capacity for processing, marketing, distributing and transporting their products.

Support is also to be given for implementation of the internal policy reforms proposed in APPER by the African Governments themselves. In this respect, the international community agreed to place greater emphasis on non-project aid, including the provision of balance-of-payments support and to provide aid on the basis of the specific requirements of African governments. They also agreed to increase the effectiveness of the IMF Structural Adjustment Facility, the International Development Association and the Fifth African Development Fund, in contributing to the implementation of APPER. They will also increase assistance to the droughtprone countries through multinational groupings such as the Permanent Inter-State Committee for Drought Control in the Sahel, and will increase assistance to the least developed countries for the implementation of the Substantial New Programme of Action for the Least Developed Countries.

The strengthening of South-South co-operation was also very strongly recommended in areas such as agricultural research, training, institution building, trade expansion etc.

Finally, a number of measures were agreed upon for monitoring the implementation of the UN-PAAERD and for appropriate reporting to the General Assembly on progress in this regard from 1987 to 1990. At the national level, it is recommended that committees or commissions be set up to coordinate and monitor the implementation of the programme.

In sum, APPER sets priorities among priorities and designs a strategy for meeting these priorities. The Submission presents these to the international community with a specific request for its support. UNPAAERD represents the "compact" agreed between the international community and African governments

on the matter of Africa's survival, economic recovery and development. Although the contributions of the international community are important for the implementation of Africa's Priority Programme for Economic Recovery, it is obvious that APPER's success hinges on Africa's internal capabilities to transform the socio-economic structures that made the continent susceptible to the well-known debilitating economic conditions. Such transformation cannot be made for Africa by outsiders. It is Africans themselves who must develop the resolve to make the structural changes required to guarantee the continent's survival and development. What now should be the role of the institutions of higher learning in bringing about the changes required to guarantee economic recovery in Africa in the next five years?

C. THE ROLE OF THE INSTITUTIONS OF HIGHER LEARNING IN THE NEXT FIVE YEARS

Africa's institutions of higher learning have a crucial role to play in ensuring the successful implementation of APPER and the UN-PAAERD and, as such, an urgent need exists for those institutions to critically examine their plans during the next five years with a view to determining how best they could support the programmes and the drive for structural transformation and policy reforms that African countries have to embark upon to achieve economic recovery and lay the foundations for self-sustained and accelerated development.

African Governments have undertaken to remove the internal constraints on their countries' development. In this they have made commitments to improve economic management, rationalize public investment policies, use resources with greater efficiency and discipline and ensure that the people participate effectively in development. They have also committed themselves to restructure their economies giving priority to food; revitalize other sectors in support of agriculture; develop human resources; and intensify the fight against drought and desertification. Institutions of higher learning in Africa can assist their Governments in meeting these objectives. In what follows, some ways in which this assistance can be provided are discussed.

(a) Better Management of the African Economies

At the root of the economic crisis which has given rise to the need for the Recovery Programme lies the serious decline of economic management capabilities in Africa. Planning capabilities have been severely weakened, financial management systems are almost in disarray in many an African country, human resources are poorly utilized and physical development resources are being left to rot. Unless the region's capabilities to manage the African economy with a high degree of efficiency are guaranteed, no attempts at recovery and rehabilitation and no amount of financial resources will put this continent on the path of self-reliant and self-sustained development. Strengthening economic management capabilities is, therefore, the essential springboard required to launch the African economy towards full recovery. In this respect,

universities and other institutions of higher learning must play an active role in spearheading research on development management, and conducting training programmes for practising planners and managers in all fields of economic management. "Classroom planning" theories must give way to homegrown planning techniques. Financial management must put weight on efficiency in mobilizing, conserving and optimizing resources; control and monitoring mechanisms must be rendered much more effective; and Africa's human resources must be made more effective in their contributions to growth and development.

Third level educational institutions must assist in unravelling the many causes of the decline in economic management within the region with a view to proposing the solutions required to make Africa better able to manage its resources towards the attainment of its development objectives.

The immediate need for the implementation of APPER is the mobilization of financial resources. African Governments have committed themselves to mobilizing US\$9.12 billion domestically every year to implement their recovery programmes. They will have to rely not only on traditional sources of resource mobilization but also on new ones, and above all, would have to manage these resources in a way that will minimize waste and make them more productive. The institutions can assist their governments by proposing ways of mobilizing financial resources.

Financial resources utilization pre-supposes their having first been mobilized. The most common ways of mobilizing revenue are through trade, fiscal measures, and concessional and non-concessional international transfers. In Africa, however, one form of resource mobilization that is usually not given much attention is the identification and blockage of channels through which there is an enormous leakage of foreign exchange. Through these leakages, billions of dollars are lost to the African economies every year.^{1/} Although merchandise trade accounts for a good part of financial leakages, certain practices unrelated to trade also contribute significantly. Among these, management services are a prime culprit. These services are delivered through consultancy services, technology transfer and training abroad. Very often, these services could have been provided locally at much lower costs to the receiving country. One might argue that they are normally imposed by donors as a condition of their assistance to development projects. If such were the case in the past, these same donor governments have not undertaken to make greater use of African expertise in their assistance packages.^{2/} Third-level educational institutions should now initiate the necessary action to seal off this source of capital flight from African economies.

The institutions should indicate their preparedness to provide consultancy services to government, parastatal organizations and private enterprises. They

^{1/}See UNECA, "Report of the Second Workshop on Leakages in African Economies", Addis Ababa, 1984.

^{2/}UN-PAAERD, op.cit.

should be prepared to release expertise from their normal teaching and research functions to assist their governments in crucial areas such as project design, pre-feasibility studies and project evaluation. Demand for these services is expected to be very high, if the amount of US\$128 billion is to be absorbed during APPER's five-year life. So also are the chances that many more foreign experts will be imported to swell the ranks of Africa's estimated 40,000 foreign technical assistance personnel. The institutions must endeavour to identify the areas in which the use of management and other services is being anticipated with a view to offering their services and thus obviate the need for importing expertise with the foreign exchange leakages that are bound to result. One policy consideration that must be made by the institutions, involves the conditions under which their services would be provided. Third-level educational institutions have bemoaned the limited use to which they have been put in the provision of consultancy services. The opportunity now presents itself for them to gain the confidence of their prospective users by offering to contribute to their countries' recovery at little or no cost to their governments.

Tremendous financial leakages result from trade malpractices such as over-invoicing of imports and under-invoicing of exports. The former is estimated to have cost Nigeria some US\$60 million and the latter about US\$71 million in 1981.^{1/} Other countries in Africa also lose huge amounts in this way - resources which could have been put to productive use in development endeavours. The actions of multinationals and certain technology transfer practices also contribute a great deal to increasing the flight of capital from African countries. The time has come for African governments to have a better grasp of the way these vital development resources are squirreled from the continent, with a view to instituting measures to arrest the trend. Third-level educational institutions in Africa can assist their governments to block the many sources through which they lose capital. Institutions should consider launching a programme of research aimed at identifying sources of leakages in their countries so as to propose to their governments effective ways of stopping or reducing them, including mechanisms which may be put in place for that purpose.

A good amount of training abroad could be undertaken locally or elsewhere in Africa. There are adequate facilities for management training in most countries of the region. Teacher training can also be provided fairly satisfactorily. Training of paramedical staff should not present too great a difficulty. Technician and engineering training might be the only area with some shortcomings within the region. Yet African countries continue to spend resources, sometimes unjustifiably so, to send their nationals abroad for training. In 1982, the training "market" was estimated to be about US\$5 billion worldwide. African countries, in that year spent US\$1.4 billion approximately in that market. The task of the institutions of higher learning is to ascertain whether or not facilities existing in their countries could not be used to reduce the cost - both direct and indirect - of training abroad. They ought

^{1/} See ECA, op.cit. P.3.

to undertake a thorough study of existing training infrastructure in order to determine their capacity to provide the services sought after elsewhere, and with a view to taking measures to fill any identified gaps. They should also volunteer their advice to their governments on this very important source of financial leakage.

Although the top-most priority area in the use of available resources for the priority programme, is financial, there are other productive resources whose utilization must be optimized. In Africa, to-day, socio-economic decay can commonly be seen with the naked eye. Public infrastructures such as roads, public buildings etc. are, as it were, left to seed; educational and human resources are underutilized; and transport and communications systems are in decline. These are all valuable resource whose optimality will in turn create more resources. How they can be more effectively utilized for that purpose is a question institutions of higher learning should answer for the benefit of those formulating and implementing national priority programmes.

(b) According Priority to the Agricultural Sector

APPER reiterates the need for African agriculture to emerge as the motor of development and the catalyst for stimulating growth, in all other sectors.

For the agricultural sector to serve as the centre of sectoral linkages, its current levels of productivity must be increased significantly. In fact Africa's survival requires it even more so. Institutions of higher learning in Africa can assist African governments achieve this primordial objective by helping the African regain control over his physical environment. Simple production implements and tools need to be produced to assist the farmer achieve higher levels of productivity. While in the long run, the institutions in concert with industry must help create capabilities for heavy agricultural equipment to be produced within this region, in the medium-term, third-level educational institutions must contribute to meeting the immediate production requirement of the African farmer. This requires that simple production tools and implements which are already in use should be improved for greater efficiency and that ways ought to be found to develop from within the rural environment, new and simple agricultural production technologies that would benefit the farmer. The proposal is that third-level educational institutions should show inventiveness in coming to the assistance of the African farmer to meet his day-to-day production needs.

The development and greater utilization of local factor inputs in production serves to reduce the region's dependence on others for the provision of these inputs, and stimulates internal economic demand. Its net effect is to reduce the need for imports thereby also reducing foreign exchange requirements. Universities and other third-level educational institutions can, through a vigorous programme of R & D in science and technology, reduce the region's dependence on imports for the provision of production inputs. Factor inputs

from outside the African economies must be substituted with those from within, and attitudes would have to be changed so that consumption patterns favour the local production of goods and services. This demands the gradual stimulation of indigenous capacities to produce local agro-industrial goods for time and energy saving purposes and to enhance greater productivity. A great deal of work in industrial, scientific and technological R & D would be required. In the main, third-level educational institutions are for the moment, the centre from which capabilities could be harnessed to undertake research, design and build prototypes before handing over to industry for production and marketing. In addition, there is need for the institutions to look around them and propose how what surrounds the African can be used to produce a wide range of goods such as fertilizers, pesticides, pharmaceuticals, cheap forms of energy such as biomass and solar energy etc.

Drought and desertification are two scourges that threaten Africa's agricultural development. Apart from measures to stimulate agriculture and food production, it is necessary also to direct attention to the control of desertification and drought within the continent as an equally important strategy for agricultural development. Third-level educational institutions should intensify their programmes of research and teaching in range management, deforestation, overgrazing and the effects of certain cropping practices on climate and soil fertility; the exploitation, conservation, control and utilization of water resources. They should also increase their contributions to the strengthening of Africa's hydrological data base and the development of effective early warning and crop forecasting systems.

(c) Africa's External Debt Problem

By the end of 1986, Africa's total external debt was estimated at close to US\$200 billion representing close to 50 per cent of regional GDP and more than 190 per cent of the value of exports. Debt servicing obligations during the life of APPER will extract from African countries between US\$14.6 and US\$24.5 billion annually, up from only US\$4.3 billion between 1980 and 1982. This dramatic increase in Africa's external debt and debt servicing obligations will doubtless make efforts to achieve full recovery in the five years from 1986 to 1990 more difficult. While measures to alleviate Africa's debt burden can only be implemented with the assistance and the good will of the international community, African countries themselves should evolve a set of measures to reduce debt without having to divert resources from priority development areas. This requires policies to ensure that frugality prevails, and calls for an efficient system of debt management. Public financial management practices would need to be innovative and to develop new sets of skills to control debt within the region.

Institutions of higher learning have a role to play in assisting in this regard. There is need to first understand what went wrong with Africa's borrowing practices in the past with a view to proposing ways of avoiding such repetitions in the future. There is also need to create mechanisms to control

borrowing and monitor debt and debt servicing. The institutions should thus embark on a programme of studies aimed at gaining a much better understanding of the debt problem, in order to recommend to their governments, measures that would alleviate it in favour of Africa's rapid economic recovery. They should also design and execute short courses for Africa's financial managers, particularly those who are more directly involved in executing borrowing and debt repayment policies, to increase the efficiency of control measures which Africa's heavy debt burden demands.

Uncontrolled borrowing is a function of inefficiency in planning in the first place. Therefore, while planning capabilities ought to be improved for overall social and economic growth to be accelerated, they also have, in the short and medium terms to be developed so that African countries are able to avoid the rampant and unco-ordinated borrowing practices in the past. Africa's institutions of higher learning should bring their expertise in this field to the service of their Governments. They should also make a thorough review of the lending policies and objectives of the major financial and banking institutions, vis-a-vis their real impact on Africa's long term economic and, especially, social development interests.

(d) Involving the People in the Development Process

The institutions of higher learning must be more involved in helping their communities find the right solutions to their day-to-day social and economic problems. In the past, disadvantaged communities in Africa's rural areas and urban informal sectors have been of interest to Africa's educational institutions mostly as guinea pigs on whom western development theories can be tested. Research on these communities has largely been designed to serve academic ends, and has contributed little to furthering the well-being of those within them. Yet these are the people who bear the full brunt of the effects of Africa's economic crisis and who require assistance the most, to cope with the problem of survival from day to day.

If universities and other third-level educational institutions intend to show concern for Africa's downtrodden, they should now begin to design a programme of action to help the poor tackle their health and nutritional problems; their fight against a deteriorating physical environment; and the constraints on their full development as people, imposed by ignorance and illiteracy. University extension services must now be truly community development-oriented. They must be multi-disciplinary, problem-solving and down-to-earth in their programme activities. This is the way institutions of higher learning can help equip Africa's disadvantaged with the capabilities to participate more fully in development policy making and implementation.

In addition, third level educational institutions should draw more from the communities that surround them, lessons about Africa's development problems that would be of use in teaching, learning and research. Unless this is done, Africa's institutions of higher learning will continue to produce intelligent and highly-qualified men and women who are poorly equipped to understand and grapple with the day-to-day problems of underdevelopment that surround them.

D. THIRD LEVEL EDUCATIONAL POLICY REQUIREMENTS FOR THE IMPLEMENTATION OF APPER

Emergencies demand that things be done differently. Like governments, institutions of higher learning in Africa must take on new forms of behaviour if they wish to make contributions to Africa's short and medium-term needs for recovery. To prepare themselves to make these contributions, the institutions would have to evolve a new set of policies and establish new mechanisms for their implementation. They would also have to be most innovative in the ways they choose to motivate the agents whose responsibility it would be to implement the new policies. In this regard, a few courses of action are proposed in what follows, for consideration.

(a) Training for Recovery and Development

"Education", the primary goal of educational institutions, is aimed at the long-term development of the individual's skills, knowledge and attitudes to enable him make contributions to his society's social, economic, political and cultural development. The goals of "training" are to develop an individual's skills, knowledge and attitudes so that he can perform specific tasks more efficiently. Thus while education would have a long time-horizon (five years and more) training would have medium and short-term learning objectives. Therefore, learning policies in third-level educational institutions would need to be altered to de-emphasize "education" in favour of "training" if these institutions should contribute their share in the implementation of Africa's priority programme, whose time-frame is only five years. This is not meant to suggest that traditional learning and research activities of third-level educational institutions should be abandoned and that training activities be concentrated on entirely. Rather, what is required is that third-level educational institutions should put more effort into training in specific identified areas of relevance to the implementation of APPER. A programme of "crash courses" could be designed to help in various areas of economic management whose strengthening is vital for the recovery programme. Special short courses could be designed for key agents in agriculture to help develop water resources, install small irrigation systems, undertake afforestation and re-afforestation schemes etc.

(b) Research in the Service of APPER

The value of research in third-level educational institutions, has traditionally, been judged by its contribution to the build-up of knowledge. While educational institutions ought to abide by their traditions, they must also be mindful of their obligation to make research serve the needs of the community. If African governments have, in the past, not shown much interest in funding research, it may be because they have not been convinced of its functionality in development. Governments now have to implement a recovery programme. They will have to harness all the capabilities available to them

for success to be assured. Research is the pathfinder Africa requires most to guide its decisions on how to invest its meagre resources for recovery and development. Third-level educational institutions now have to be cognizant of this fact and formulate research policies and programmes specifically for the needs of Africa's Priority Programme for Economic Recovery. This should be considered as an added function which the institutions have assumed specifically to respond to the present emergency. The research programme should draw from all possible sources for funding - government, the private sector and international donors. It should be different from traditional research in that it should not be motivated by the need to publish, but by its practical value to APPER. The uses to which it will be put should be determined beforehand. Research projects should not be allowed to last more than twenty-four months.

(c) Mechanisms for a Continuous Dialogue with Government

Although the priorities of the Recovery Programme are well known, implementing them from day to day will certainly be accompanied by changes and adjustments as problems surface and strategies have to be altered. Because of the importance of the role which the institutions have assumed in the Recovery Programme, they must enter into greater consultation with their governments to guide and be guided, and to participate actively in monitoring progress. In this respect, the institutions of higher learning may wish to consider proposing to their governments, the creation of a national institution/government mechanism to monitor and review the implementation of APPER on a regular basis. This would afford both parties the opportunity to promptly identify bottlenecks and emerging problems and respond quickly to them.

E. RECOMMENDATIONS FOR ACTION

Africa's institutions of higher learning have an important role to play in steering the economies of their countries towards full recovery in the short and medium terms, and development in the long run. It is incumbent upon them to define how individually and collectively, through the AAU and its subsidiary bodies, they can fulfil that role. The following is recommended for consideration:

(a) At the National Level

- (i) National institutions should draw up a programme of research to respond to the specific areas of priority identified by their governments to implement national recovery programmes. This may include research in resource mobilization and conservation, including measures to reduce financial leakages; research on various aspects of agricultural development including food production, distribution and marketing; the production of drought-resistant and high-yielding seeds, soil conservation, water resources etc.; agro-industrial R & D for the production of agricultural tools and equipment, pesticides and fertilizers, medicines, etc.

- (ii) The institutions should develop a "Training for Recovery Programme" throughout the life of APPER to provide short, day-release, weekend and vacation courses for public officials and managers of state-owned enterprises in areas such as debt management, aid management, financial and general economic management, project planning etc.
 - (iii) Since it is anticipated that the demand for consultancy services will increase during the implementation of APPER, the institutions should consider establishing Consultancy Bureaux where none so far exist, to enable the institutions cope with the large amount of requests for these services that should be expected within the next five years.
 - (iv) It has already been proposed that the criteria for the selection of research proposals for funding should be their relevance to APPER. Since this may not be consistent with the "publish-or-perish" syndrome which governs staff advancement, it is recommended that in order to encourage researchers, trainers and consultants combine their career growth needs with the needs of APPER, a "points system" be evolved through which "points" are awarded to staff for each "non-academic" activity undertaken in support of the priority programme. These points would substitute for credit gained for research and publication.
 - (v) The institutions should increase public awareness of the African social and economic crisis, its causes and the short-, medium- and long-term solutions prescribed in APPER, the Submission, UN-PAAERD and the Lagos Plan of Action, through the conduct of seminars and conferences and the delivery of lectures to public servants, businessmen and students. This is important if the gravity of Africa's predicament is to be fully appreciated and if attitudes are to change in favour of Africa's recovery and development.
 - (vi) National institutions should initiate action with their governments to set up mechanisms for a continuous dialogue between the institutions and government on the implementation of programmes of recovery, and to review the contributions of the institutions to the national effort.
- (b) At the Sub-Regional Level
- (i) Institutions in the various subregions should agree on measures to contribute to the solution of common problems constraining the recovery and development of countries in their subregions. Institutions in the Sahel and in North Africa may focus on the problems of drought and desertification; those in Southern Africa and their impact on development; and the island nations of East Africa on how to promote a greater degree of integration with mainland Africa.

- (ii) The institutions should determine how, on a subregional basis they can establish a forum to exchange ideas and work out strategies for formulating common research and training programmes and place more of their teaching facilities and expertise at the common use of all

(c) At the Regional Level

- (i) Just as governments have formulated incentives schemes to motivate the direct producer towards higher levels of productivity, so also should institutions of higher learning in Africa come up with their own set of incentives to motivate their agents towards making meaningful contributions to the implementation of APPER. In this regard, it is recommended that an "Africa Prize" be awarded each year to the individual or individuals who have made the most valuable contributions to the implementation of the Recovery Programme. A similar commendation - "The Universities Award" - should go to the institution in which the individual worked. The AAU may be requested to establish the mechanism and define the modalities through which this recommendation may be implemented.
- (ii) The Second Conference of Vice-Chancellors, Presidents and Rectors of Institutions of Higher Learning in Africa which was held in Mbabane, Swaziland from 18-22 February 1986, decided to set up panels to appraise teaching and research capabilities and capacities in African universities with a view to identifying potential centres of excellence for the development of research and learning programmes for use region-wide in the crucial areas of water resources, food research, irrigation science and engineering, hydrology, farm tools research and development, meteorology, drought and desertification research, veterinary science and medicine. The need for Africa's economic recovery and the crucial role the institutions must assume in the implementation of APPER demand that those panels be established and put to work with the minimum possible delay. The AAU and ECA may be requested to finalize the modalities required to implement this recommendation.
- (iii) The Vice-Chancellors, Presidents and Rectors of Institutions of Higher Learning in Africa had also recommended the setting up of working groups to propose a set of new contents of undergraduate textbooks and syllabi in the social sciences and to identify chapter and book authors. The important subject areas of development economics, social development, political science and development administration and management were singled out for initial action. This recommendation should also be implemented and the AAU in collaboration with ECA should be mandated to act accordingly.

- (iv) An annual report on the activities of the institutions in support of APPER should be prepared by the AAU and circulated to all African institutions of higher learning, all African governments, the ECA and the OAU.

F. CONCLUSION

The social and economic crisis in Africa, which was the subject of the Second Conference of Vice-Chancellors, Presidents and Rectors of Institutions of Higher Learning in Africa, is only now abating, but has left the African economy so debilitated that unless it is rehabilitated in the short and medium terms, Africa's long-term development as prescribed in the Lagos Plan of Action and the Final Act of Lagos will be severely delayed. The African Heads of State and Government, in recognition of this fact, have identified a new set of priorities which would ensure Africa's total economic recovery and better preparedness to move towards the attainment of its long-term development objectives. They have recognized further that Africa cannot by itself undertake all that is necessary to implement the recovery programme, and have decided to seek the assistance of the international community. The international community have accepted not only Africa's perception of the causes of its problems, but also the measures proposed to solve them. They have thus entered into a "compact" with Africa through which they have agreed to assist the continent in implementing the recovery and development programme in the ways and manner chosen by African governments themselves.

All agents within the African economy will have to define for themselves a role in the implementation of Africa's recovery programme. The governments have said clearly what they intend to do; financial institutions have made known what their contributions would be; in some countries the parastatals have also made their declaration on the part they hope to play in the recovery programmes. It is now up to the institutions of higher learning to decide how the tremendous teaching and research capabilities within them can be put to use in Africa's economic recovery for development.

A set of measures have been proposed whose implementation would require that the institutions depart, at least temporarily, from their traditional functions. Another set of measures calls only for these traditional functions to be geared to meet the specific needs of Africa's recovery programme. Action must be undertaken at both the national and the regional levels, and monitoring and reporting on progress made is essential.

Sacrifices will also have to be made, and the institutions should see these sacrifices as being an essential part of their contribution to Africa's survival. They should also motivate their agents to work selflessly and efficiently to provide the services which only educational institutions are equipped to provide, towards achieving the full economic recovery of this continent.